PELLISSIPPI STATE TECHNICAL COMMUNITY COLLEGE
MASTER SYLLABUS

PC OPERATING SYSTEMS
CST 2415

Class Hours: 3.0  Credit Hours: 4.0
Laboratory Hours: 3.0  Date Revised: Spring 300

Catalog Course Description:
A study of the current operating systems used in computers today. Emphasis will be on microcomputers and workstation environments. DOS, OS/2, Windows and others will be covered and used. Minicomputer and mainframe environments will be discussed.

Entry Level Standards:
The entry level student is expected to have some familiarity with computers. The student should be able to use a standard keyboard and maintain 23 words per minute error-free typing rate. The student must have math, writing, verbal and English language skills at the college entry level.

Prerequisite:
CST 1110 or CST 1010

Textbook(s) and Other Reference Materials Basic to the Course:

Bound Series:
Intro to DOS 5.0/6.0, by Phillips, Course Technology.
Microsoft Windows 95, by Parsons and Oja, Course Technology.
Microsoft Windows NT, by Parson and Oja, Course Technology.

Supplies:
Qty 4 - DS/HD 3 1/2" Floppy Diskettes w/blank labels.
3-Ring Notebook, Paper 8 1/2 x 11 (3-hole white and lined).

I. Week/Unit/Topic Basis:

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic</th>
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<tbody>
<tr>
<td>1</td>
<td>Introduction, Overview, Concepts, Hardware, Software</td>
</tr>
<tr>
<td>2</td>
<td>Operating Systems Overview, Hardware, Micro, Mini, Mainframe, LAN, UNIX, VMS</td>
</tr>
<tr>
<td>3</td>
<td>PC Architecture and Memory Management, RAM, ROM, Storage, Intro to DOS</td>
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<tr>
<td>4-5</td>
<td>Networking and Security, Internet, Advanced DOS</td>
</tr>
<tr>
<td>6-8</td>
<td>Windows Introduction/Use/Features</td>
</tr>
<tr>
<td>8-9</td>
<td>Windows 95</td>
</tr>
<tr>
<td>9-10</td>
<td>Advanced Windows 95</td>
</tr>
</tbody>
</table>
II. Course Objectives*:

A. Develop a working understanding of the terminology associated with modern day computers and associated equipment. III

B. Become familiar with applications software found in business and industry. IV

C. Develop a working knowledge of current operating system design and practice. IV

D. Develop skills associated with installation, use and control of microcomputer operating systems and software/product support for PC microcomputer equipment. II,III,IV

E. Become familiar with issues related to data access, security, file allocation and process control. III

F. Become familiar with the concepts of shells, desktops, folders, prompts, icons, drives, shadows, indexes, tutorials, command reference, templates, windows, menus, scroll bars, dialog boxes, tasks, editors, managers, fonts, trees, attributes, wallpaper, configurations, executives, ports, spoolers, queues, parameters, tools, buttons, accessories, emulation, data transfer, embedding, linking, shredder, migration, macros, I/O, routing, concurrency, deadlock, virtual memory, buffers, detection, TSR and GUI. II,III,IV, VII

G. Design and install start-up modules and icons. II,III,VI

H. Install products into the operating systems and document user/system activities/problems. II,IV,VI

I. Demonstrate proficient use of manuals, indexes, on-line reference sources and external resources. II,III,VI

*Roman numerals after course objectives reference goals of the Computer Science Technology program.

III. Instructional Processes*:

Students will:

1. Use Windows 95/98, NT 4.0, 2000 and DOS operating systems commands and utilities to perform practical tasks for personal computing. Communication Outcome, Problem Solving and Decision Making Outcome, Technological Literacy Outcome, Information Literacy Outcome, Transitional Strategy, Active Learning Strategy

2. Solve problems by diagnosing and troubleshooting PC problems. Problem Solving and Decision Making Outcome, Technological Literacy Outcome, Information Literacy Outcome, Transitional Strategy, Active Learning Strategy

3. Solve problems encountered in the installation, configuration, and upgrading of PC components and system software. Problem Solving and Decision Making Outcome,
Technological Literacy Outcome, Information Literacy Outcome, Transitional Strategy, Active Learning Strategy


5. Handle and examine modern computing devices. Technological Literacy Outcome, Transitional Strategy, Active Learning Strategy

6. Prepare documents for management explaining PC system problems and the need for new systems, upgrades, networks, etc. Communication Outcome, Problem Solving and Decision Making Outcome, Technological Literacy Outcome, Information Literacy Outcome, Active Learning Strategy

7. Practice elements of the work ethic such as punctuality, professionalism, dependability, cooperation, and contribution. Personal Development Outcome

*Strategies and outcomes listed after instructional processes reference Pellissippi State’s goals for strengthening general education knowledge and skills, connecting coursework to experiences beyond the classroom, and encouraging students to take active and responsible roles in the educational process.

IV. Expectations for Student Performance*:

Upon successful completion of this course, the student should be able to:

1. Demonstrate proficient use of terminology associated with computers, software and applications products. A,B,C,D,E,F,G,H,I

2. Demonstrate an understanding of the use of hardware, firmware and systems terminology. A,B,C,D,E,F,G,H,I

3. Demonstrate effective use of commands, menus, icons, and system access. D,F,G


5. Demonstrate use of all major DOS commands. C,D,E,F,G,H,I

6. Demonstrate proficient use of the keyboard and mouse in accessing programs, data and/or files. C,D,F

7. Demonstrate use of all major Windows commands and selections. C,D,E,F,G,H,I

8. Demonstrate use of all major application access commands, utilities and selections. C,D,E,F,G,H,I


10. Create secure environments and files. B,D,E,F,G,H,I


12. Transfer data files to/from one storage device to another. D,E,G

13. Produce reports using a computer, software product and media resources. B,D,E,G,H,I
14. Demonstrate proficient use of all PC resources in accessing files, entering data, keying commands and utilizing the microcomputer. A,B,C,D,E,F,G,H,I

15. Demonstrate installation, set-up and use of integrated packages and transfer data, files, and conversion information between products. B,E,H

16. Read documentation associated with commercial products and demonstrate content knowledge of that product. Documentation will be in paper form and on-line. B,I

*Letters after performance expectations reference the course objectives listed above.

V. Evaluation:

A. Testing Procedures:

There will be three tests which count 100 points each, or 300 points total. There will be a final comprehensive test which will count 200 points. Tests may consist of multiple choice, matching, fill-in-the-blank or short answer questions. There will be no make-up tests unless prior arrangements are made with the instructor.

B. Laboratory Expectations:

Two hundred LAB ASSIGNMENTS points (may include extra credit if applicable to lab experiences) must be accumulated to pass this course. Lab attendance is required. Assignments will be given and must be completed and handed in at the expected date and time. All assignments turned in late will be reduced by 5 points. No assignment will be accepted more than one week late unless approved in advance by the lab instructor. Lab assignments will count 20 points a week, or 300 points total. Students MUST earn at least 200 points in lab to pass this course.

C. Field Work:

N/A

D. Other Evaluation Methods:

Pop-quizzes and “outside-class” take-home assignments will be given which will total 200 points. Instructors may allow extra credit assignments during the last five weeks of class which shall not exceed 50 points in value.

E. Grading Scale:

<table>
<thead>
<tr>
<th>Points Range</th>
<th>Grade</th>
<th>Notes</th>
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<tbody>
<tr>
<td>900 -1000 pts. (w/min 200 in lab)</td>
<td>A</td>
<td></td>
</tr>
<tr>
<td>800 - 899 pts. (w/min 200 in lab)</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>700 - 799 pts. (w/min 200 in lab)</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>600 - 699 pts. (w/min 200 in lab)</td>
<td>D</td>
<td></td>
</tr>
<tr>
<td>0 - 599 pts. (or &lt; 200 in lab)</td>
<td>F</td>
<td></td>
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VI. Policies:

A. Attendance Policy:

Pellissippi State Technical Community College expects students to attend all scheduled instructional activities. As a minimum, students in all courses must be present for at least 75 percent of their scheduled class and laboratory meetings in order to receive credit for the course.
B. Academic Dishonesty:

Plagiarism, cheating, software piracy, non-educational use of the computer systems and other forms of academic dishonesty are strictly prohibited. A student caught cheating or infracting specific rules will be given a grade of "F" for the course.

C. Other Policies:

Students are expected to promptly attend all lecture and lab classes as assigned. If a class is missed, students are encouraged to make-up all work and get notes and/or handouts.